REMARKS

Claims 1-29 are pending in the application.

Claims 1-4, 15 and 16 stand as finally rejected.

Claims 5-14 and 17-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 1 has been rewritten to incorporate the limitations in claims 4 and 11. Claim 15 has been rewritten to incorporate the limitations from claims 16 and 17. Applicants respectfully submit that no new subject matter has been added by these amendments to the claims.

CONCLUSION

Applicant respectfully submits that the foregoing amendments and remarks overcome the rejections and objections raised by the Examiner and that the specification and claims are in proper form and condition for allowance.

It is believed that no other fee is due at this time. Should any fee be required for any reason related to this document, however, the Commissioner is authorized to charge said fee to Deposit Account No. 08-3038, referencing Docket No. 12554.0004.NPUS00. The Examiner is hereby respectfully invited to contact the undersigned attorney with any questions, comments or suggestions relating to this application.

Respectfully submitted,

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APPENDIX B

Therefore, we claim:

1. (Once amended) A shape memory alloy (SMA) switch comprising:

a substrate;

a continuous SMA element attached to said substrate at first and second locations and having a first portion and a second portion, said first portion contracting to place said SMA element in a first conformation upon being heated above a predetermined temperature and said second portion contracting to place said SMA element in a second conformation upon being heated above said predetermined temperature; [and]

a cursor attached to said SMA element at a location substantially intermediate said first and said second portions to reciprocate between a first position when said SMA element is in said first conformation and a second position when said SMA element is in said second conformation; and

means for separately applying sufficient heat to said first and said second portions of said SMA element to reciprocate said cursor between said first and said second positions wherein said means for separately applying heat comprises a first electrical circuit that includes said first portion of said SMA element and a second electrical circuit that includes said second portion of said SMA element, said first and second circuits sharing a common ground fixedly attached to a mounting surface upon which said substrate is mounted.

4. (Cancelled)

11. (Cancelled)

12. (Once amended) The switch of claim [11] 1 further comprising a spring component connected to said SMA element to maintain an electrical connection between said SMA element and said common electrical ground while permitting said SMA element to alternate between said first and second conformations.

13. (Once amended) The switch of claim [11] 1 further comprising a brush element in sliding contact with said common electrical ground, said brush element being connected to said SMA element to maintain an electrical connection between said SMA element and said common electrical ground while permitting said SMA element to alternate between said first and second conformations.

14. (Once amended) The switch of claim [11] 1 wherein said common ground comprises a wire bond electrically connecting said SMA element to said mounting surface via said cursor.

15. (Once amended) A bistable shape memory alloy (SMA) switch comprising:

a substrate;

a transducer connected to said substrate comprising a single continuous SMA element having first and second conformations and including:

a) a first heating unit coupled to a first segment of said SMA element to heat said first segment above a predetermined temperature causing contraction of said first segment so that said SMA element assumes said first conformation; and

b) a second heating unit coupled to a second segment of said SMA element to heat said second segment above said predetermined temperature causing contraction of said second segment so that said SMA element assumes said second conformation, wherein said first and said second heating units respectively comprise a first electrical circuit and a second electrical circuit, said first and said second electrical circuits sharing a common node on said SMA element that includes an electrical ground fixedly attached to a mounting surface upon which said substrate is mounted and a spring component extending from said electrical ground to said SMA element to maintain electrical connectivity between said SMA element and said electrical ground while permitting movement of said SMA element between said first and said second conformations;

a cursor coupled to said SMA element to reciprocate between first and second positions as said SMA element alternates between said first and said second conformations; and

a first contact arm in sliding contact with said cursor to move from an open position to a closed position as said cursor moves from said second to said first position.

16-18. (Cancelled)